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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BUI, KIEU OANH T

ART UNIT PAPER NUMBER

2611

DATE MAILED: 03/15/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,138

Applicant(s)

SIE ET AL.

Examiner

KIEU-OANH T BUI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

2. Claims 1-3, 5-6, 8-9 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Ganek et al. (U.S. Patent No. 5,724,646 or "Ganek" hereinafter).

Regarding claim 1, Ganek discloses "a method for pre-storing a portion of a program distributed on a plurality of distribution conduits and in a linear schedule with staggered start times", i.e., programs and portions of program are pre-stored in a buffer of a view box 160 being distributed by an interactive network and controller INAC 140 to a plurality of transmission line 110 to users 195 in a linear schedule with staggered start times (Fig. 1, col. 1/lines 55-65 for staggered time interval & Figs. 2a-2f; and col. 3/line 50-65 for an overview of the system), the method comprising: "determining a first start time of the program on a first distribution conduit", i.e., primary channels (NVOD A1...) carry programs with associated staggered start times, for instances, each program are separated by 10 minutes (as in the illustration of Fig. 2a of the prior art, and col. 3/lines 1-5, col. 4/lines 58-67); "determining a second start time of the program on a second distribution conduit", i.e., secondary channels carry programs or portions of programs with their associated start times (Fig. 2d, and col. 6/line 54 to col. 7/line 23); "determining a stagger time between the first start time and the second start time", i.e., the stagger time between the first start time and the second start time of the secondary channel is determined by Tstag or

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stagger time (col. 7/lines 7-8); “storing a segment of the program about equal in length to the stagger time”, i.e., the segment or portion of secondary channel carries equal to the stagger time T_{stag} and being stored in a buffer storage 180 (Fig. 4 for a view box with a buffer storage, and col. 7/lines 7-23); and detecting a user request to begin playing the program after the storing step has begun, i.e., after detecting the user request to begin playing the program, the system automatically offers to start the program immediately using the pre-stored portions of the program in a buffer, namely, all the information contained during a stagger time interval T_{stag} (see col.2/lines 7-23; Fig. 3 at steps 430, 440 & 450, and col. 6/line 54 to col. 7/line 49).

As for claim 2, in view of claim 1, Ganek further discloses “wherein at least one of the first and second distribution conduits comprises at least one of a digital channel and an analog channel”, i.e., digital and analog can be employed within this system, because MPEG (col. 6/lines 12-36) and a digital tuner (as shown in Fig. 4) are addressed for tuning digital channels, and analog channels can be used via transmission line 110 (col. 6/lines 33-42).

As for claim 3, in view of claim 1, Ganek further discloses “wherein at least a portion of the first and second distribution conduits share a same channel”, i.e., a first and second distribution conduits can share a same channel as in a same channel 101, or 103, or 104, or 105, or 106 as the user can view the program from both primary channel and secondary channel as the first and second distribution conduits (as illustrated in col. 8/lines 30-65).

As for claim 5, in view of claim 1, Ganek further inherently discloses “wherein the determining the stagger time comprises subtracting the first start time from the second start time”, i.e., T_{stag} is a stagger time interval between the start time of the first program and the start time of the second program, so it indicates that to determine this T_{stag} , this value is clearly a

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difference between the first program and the second program; in other words, the subtraction of the first start time from the second start time, for instance, channel 102 has a start time at (Tzero + 10 min) and channel 101 has a start time at Tzero, so the $T_{stag} = (T_{zero} + 10min) - T_{zero} = 10min$ as the stagger time (see col. 7/line 49 to col. 8/line 6).

As for claim 6, in view of claim 1, Ganek further discloses “wherein the storing the segment comprises storing the segment at a user location” (Fig. 3/item 180; and col. 7/lines 12-41 as all information contained at Tstag stored at the storage 180 of the view box 160 at the user location; as also illustrated in Fig. 1, view box 160 in a close location to user location at TV 195).

As for claim 8, in view of claim 1, Ganek discloses “wherein the storing the segment comprises storing the segment on a rotating disk”, i.e., storage 180 served as a hard drive for storing segments (col. 5/lines 48-54 & col. 7/lines 37-41) within the view box 160, and a hard drive regarding as a rotating disk because it contains motors, electronics and other gadgetry for storing (writing) and retrieving (reading) data in a rotating manner or recirculating manner on a disk (as disclosed in col. 7/lines 8-41 for STORE and READ and in a rotating manner on the hard disk or storage 180).

As for claim 9, in view of claim 1, Ganek discloses “comprising recording the segment from the first distribution conduit”, i.e., the segment and the example, as disclosed earlier in claim 5, from the first distribution conduit is being stored or recorded (col. 7/lines 36-41).

Regarding claim 20, Ganek discloses “a method for pre-storing a portion of a program distributed on a plurality of distribution conduits and in a linear schedule with staggered start times”, i.e., programs and portions of program are pre-stored in a buffer of a view box 160 being

distributed by an interactive network and controller INAC 140 to a plurality of transmission line 110 to users 195 in a linear schedule with staggered start times (Fig. 1, col. 1/lines 55-65 for staggered time interval & Figs. 2a-2f; and col. 3/line 50-65 for an overview of the system), the method comprising: “determining a first start time of the program on a first distribution conduit” i.e., primary channels (NVOD A1...) carry programs with associated staggered start times, for instances, each program are separated by 10 minutes (as in the illustration of Fig. 2a of the prior art, and col. 3/lines 1-5, col. 4/lines 58-67); “determining a second start time of the program on a second distribution conduit”, i.e., secondary channels carry programs or portions of programs with their associated start times (Fig. 2d, and col. 6/line 54 to col. 7/line 23); “wherein at least one of the first and second distribution conduits comprises at least one of a digital channel, an analog channel, a broadband network”, i.e., digital and analog can be employed within this system, because MPEG (col. 6/lines 12-36) and a digital tuner (as shown in Fig. 4) are addressed for tuning digital channels, and analog channels can be used via transmission line 110 (col. 6/lines 33-42 --for at least one limitation is comprised); “determining a stagger time between the first start time and the second start time, wherein the determining the stagger time comprises subtracting the first start time from the second start time”, i.e., the stagger time between the first start time and the second start time of the secondary channel is determined by T_{stag} or stagger time (col. 7/lines 7-8), so it indicates that to determine this T_{stag} , this value is clearly a difference between the first program and the second program; in other words, the subtraction of the first start time from the second start time, for instance, channel 102 has a start time at ($T_{zero} + 10 \text{ min}$) and channel 101 has a start time at T_{zero} , so the $T_{stag} = (T_{zero} + 10 \text{ min}) - T_{zero} = 10 \text{ min}$ as the stagger time (see col. 7/line 49 to col. 8/line 6); and “storing a segment of the

program about equal in length to the stagger time, wherein the storing the segment comprises beginning to store the segment proximate to a user location before the user requests to view the program", i.e., the segment or portion of secondary channel carries equal to the stagger time Tstag and being stored in a buffer storage 180 proximate to a user location before the user requests the program (Fig. 4 for a view box with a buffer storage, and col. 7/lines 7-49 for "all information contained during a stagger time interval T stag" as "segment of the program" is pre-stored in the storage buffer 180 in a recirculating manner; as illustrated in Fig. 1, view box 160 in a close location to user location at TV 195).

Claim Rejections - 35 USC 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4, 7, and 10-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganek et al. (U.S. Patent No. 5,724,646) in view of Knee et al. (U.S. Patent No. 5,589,892).

Regarding claims 4 and 14, in view of claims 1 and 10 respectively, Ganek does not disclose wherein at least one of the first and second distribution conduits comprises "a broadband network connection"; however, it is well known in the art that in order to provide NVOD or video on demand with multimedia and television program as disclosed by Ganek, a broadband network connection for higher bandwidth transmission must be (understood) included. In deed,

Knee teaches that, in an electronic program guide system that offers NVOD service, a broadband network architecture is used for handling the broadcasting and delivering of video programs (see Knee, col. 9/lines 50-58, col. 11/line 65 to col. 12/line 13 for a broadband network addressed; and col. 31/lines 24-58 for NVOD addressed). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ganek's system with a known technique as to further including a broadband network connection as a transmission medium for quickly transporting higher data files such as video files or multimedia files, i.e., in the use of NVOD, over the network. The motivation for doing this is to provide a broadband network architecture as suggested by Knee in handling multimedia files transmission from the system to the user quickly and efficiently as preferred.

As for claim 7, in view of claim 1, Ganek does not further includes "wherein the storing the segment comprises storing the segment in a non-volatile manner"; however, it is known in the art that "a non-volatile manner for storing" means to include a non-volatile memory for permanently storing data if needed. In fact, Knee teaches that, in an electronic program guide system that offers NVOD service (Knee, col. 31/lines 24-58), a non-volatile memory 20 is used for permanently storing data (col. 10/lines 40-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ganek's system with a known technique as to further including a non-volatile memory as suggested by Knee in order to store the segment or data, if needed, in a non-volatile manner to avoid losing of data if the power source is suddenly lost (a reason why people uses a non-volatile memory within a system, by Newton's Telecom, 18th edition), which also served as a motivation for including a non-volatile memory for storing data in a non-volatile manner.

Regarding claim 10, Ganek discloses “a distribution program product for pre-storing a portion of a program distributed on a plurality of distribution conduits and in a linear schedule with staggered start times, the distribution program product comprising: (code for) determining a first start time of the program on a first distribution conduit; (code for) determining a second start time of the program on a second distribution conduit; (code for) determining a stagger time between the first start time and the second start time; (code for) storing a segment of the program about equal in length to the stagger time that begins storing the segment before a user requests the program” as clearly disclosed in claim 1 above, yet Ganek does not disclose to further include “codes” for performing these steps; however, Ganek does suggest that the program control information and timing information (understood to inherently include codes) are used to control and operate the system from the VOD server (col. 4/lines 58-67, and col. 6/lines 48-53) and “a computer-readable medium for storing the codes” (col. 5/lines 16-22 for control information and timing information are stored under a programmable controller). In addition, it is known in the art that coding is commonly used in digital transmission system for uniquely identifying a program or a segment of program for easily searching, gathering, and categorizing a program or an event and for authorizing or unauthorizing a programming service if the user wants to access a program whether legally or illegally –also taught by Knee (see Knee, col. 27/lines 4-20, col. 33/lines 33-65, and col. 46/line 56 to col. 47/line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ganek’s system with a coding technique as suggested by Knee in imposing codes for these steps in order to uniquely control and process a first start time of a program, a second start

time of a second program, a stagger time, and a segment of the program at the stagger time, as already discussed in claim 1 as how Ganek teaches these limitations.

As for claim 11, in view of claim 10, Ganek further discloses “wherein at least one of the first and second distribution conduits comprises at least one of a digital channel and an analog channel”, i.e., digital and analog can be employed within this system, because MPEG (col. 6/lines 12-36) and a digital tuner (as shown in Fig. 4) are addressed for tuning digital channels, and analog channels can be used via transmission line 110 (col. 6/lines 33-42).

As for claim 12, in view of claim 10, Ganek further discloses “wherein at least a portion of the first and second distribution conduits share a same channel”, i.e., a first and second distribution conduits can share a same channel as in a same channel 101, or 103, or 104, or 105, or 106 as the user can view the program from both primary channel and secondary channel as the first and second distribution conduits (as illustrated in col. 8/lines 30-65).

As for claim 13, in view of claim 10, Ganek further discloses “wherein at least a portion of the first and second distribution conduits share a same transponder”, i.e., server 100 with transmission line 110 contained the first and second distribution conduits –primary and secondary channels -served as a same transponder to a plurality of users (illustrated in Fig. 1, and col. 3/lines 50-65).

As for claim 15, in view of claim 10, Ganek and Knee further teaches “wherein the code for determining the stagger time comprises code for subtracting the first start time from the second start time”, i.e., Tstag is a stagger time interval between the start time of the first program and the start time of the second program, so it indicates that to determine this Tstag, this value is clearly a difference between the first program and the second program; in other words, the

subtraction of the first start time from the second start time, for instance, channel 102 has a start time at (Tzero + 10 min) and channel 101 has a start time at Tzero, so the Tstag= (Tzero + 10min) – Tzero= 10min as the stagger time (see col. 7/line 49 to col. 8/line 6; and the teaching of Knee about coding technique).

As for claim 16, in view of claim 10, Ganek and Knee further teaches “wherein the code for storing the segment comprises code for storing the segment at a user location” (Fig. 3/item 180; and col. 7/lines 12-41 as all information contained at Tstag stored at the storage 180 of the view box 160 at the user location, and the teaching of Knee about coding technique).

As for claim 17, in view of claim 10, Ganek and Knee further teaches “wherein the code for storing the segment comprises code for storing the segment on a rotating disk”, i.e., storage 180 served as a hard drive for storing segments (col. 5/lines 48-54 & col. 7/lines 37-41) within the view box 160, and a hard drive regarding as a rotating disk because it contains motors, electronics and other gadgetry for storing (writing) and retrieving (reading) data in a rotating manner or recirculating manner on a disk (as disclosed in col. 7/lines 8-41 for STORE and READ and in a rotating manner on the hard disk or storage 180; and the teaching of Knee about coding technique).

As for claim 18, in view of claim 10, Ganek and Knee further teaches “comprising code for recording the segment from the first distribution conduit”, i.e., the segment and the example, as disclosed earlier in claim 5, from the first distribution conduit is being stored or recorded (col. 7/lines 36-41; and the teaching of Knee about coding technique).

As for claim 19, Ganek does not further includes “wherein the code for storing the segment comprises code for storing the segment in a non-volatile manner”; however, it is known in the art that “a non-volatile manner for storing” means to include a non-volatile memory for permanently storing data if needed. In fact, Knee teaches that, in an electronic program guide system that offers NVOD service (Knee, col. 31/lines 24-58), a non-volatile memory 20 is used for permanently storing data (col. 10/lines 40-60) and a coding technique as disclosed in claim 10. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ganek’s system with a known technique as to further including a non-volatile memory and a coding technique as suggested by Knee in order to store the segment or data with their code, if needed, in a non-volatile manner to avoid losing of data if the power source is suddenly lost (a reason why people uses a non-volatile memory within a system, by Newton’s Telecom, 18th edition), which also served as a motivation for including a non-volatile memory for storing data in a non-volatile manner and code for uniquely identifying the segment stored on a storage as preferred.

Response to Arguments

5. Applicant's arguments filed on 10/17/03 have been fully considered but they are not persuasive.

Applicants basically argues that "Ganek does not teach the step of requiring pre-storing a portion of the program, and the viewers of the present invention does not have to wait for the their program to become available", which is incorrect statements about Ganek's system and technique. The examiner would like to invite the Applicants to take a closer look at Ganek once again because Ganek clearly and exactly discloses the same invention as the present application.

First, Ganek's objective is to offer a "video on demand" (VOD) to the viewer based on NVID structure (see Summary), and the pre-storing of portions or segments of program is performed at the storage buffer as clearly stated in the Office Action. Then, the viewer does not have to wait for the program to begin, because the offset time or the missing time for that part or portion of the program is pre-stored in the buffer and provides the beginning of the program to the viewer immediately on the secondary channel as soon as the user request is detected; otherwise, the Ganek's system can not be a VOD system, meaning it offers the service right away "per demand" of the user. The present application is doing exactly the same by "storing a segment of the program about equal in length to the stagger time" as making up for the missing time or the missing portion of the program for the same purpose (in claims 1, 10 and 20).

Therefore, the Examiner disagrees with the Applicants' arguments and stands with the disclosure and teaching of Ganek and Knee as previously disclosed in the Office Action and now discussed in a revised and detailed Final Office Action.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:30 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



VIVEK SRIVASTAVA
PRIMARY EXAMINER

Krista Bui
Art Unit 2611
Feb. 25, 2004